Antimicrobial Susceptibility Report

January 1, 2016 to December 31, 2016

Mississauga Halton Out Patient (Excluding Hospitals)

Urinary Tract Pathogens - % Susceptible

Organism	Number of Isolates	Amox clavulanic	Ampicillin	Cefazolin (1)	Ceftriaxone	Ciprofloxacin	Gentamicin	Meropenem	Nitrofurantoin	Trimethoprim-Sulfamethoxazole
E. coli ^	16603	88	56	88	92	82	91	100	97	76
Enterococcus species ^^^^	5267									
Group B Streptococcus ^^	2218									
Klebsiella pneumoniae *	2113	97		95	96	97	98	100	32	92
Proteus mirabilis +	825	98	84	95	98	91	93	100		82
Staphylococcus saprophyticus ^^^	290									

Organism Notes:

* Includes ESBL and AMPC isolates (2.8% of total Klebsiella pneumoniae isolates identified).

^ Includes ESBL and AMPC isolates (5.9% of total E.coli isolates identified). In Ontario, E.coli is found to be 99.5% susceptible to Fosfomycin.

^^ This isolate is predictably susceptible to Penicillin.

^^^ Acute and uncomplicated urinary tract infections due to Staphylococcus saprophyticus will respond to commonly used antibiotics including Nitrofurantoin, Trimethoprim-Sulfamethaxazole and Fluoroquinolones.

^^^^ Clindamycin, Trimethoprim/Sulfamethoxazole and all Cephalosporins are ineffective against Enterococcus species. Enterococcus isolates recovered from urine are generally susceptible to amoxicillin and nitrofurantoin.

+ Includes ESBL and AMPC isolates (0.7% of total Proteus mirabilis isolates identified).

Antibiotic Notes:

(1) Cefazolin interpretation predicts results for Cephalexin (Keflex) in accordance with CLSI standards for urinary sites only (not systemic).

All Other Sources (Excluding Surveillance) - % Susceptible

Organism	Number of Isolates	Cefazolin	Ceftazidime	Ciprofloxacin	Clindamycin	Cloxacillin	Erythromycin	Gentamicin	Tetracycline (2)	Trimethoprim-Sulfamethoxazole
Group A Streptococcus ^^	4163									
Staphylococcus aureus ^^^	1421	86			76	86	69		95	99
Pseudomonas aeruginosa	449		93	86				92		
Group B Streptococcus ^^	161									

Organism Notes:

^^ This isolate is predictably susceptible to Penicillin.

^^^ Includes Methicillin Resistant S.aureus (MRSA). MRSA is resistant to all B-Lactams (penicillins, cephalosporins, B-lactam/B-lactamase inhibitor combinations, and carbapenems). MRSA constitutes 13.2% of total Staphylococcus aureus isolates identified.

Antibiotic Notes:

(2) Organisms that are susceptible to Tetracycline are also considered susceptible to Doxycycline.

General Notes:

Antibiogram results, patient risk factors for resistant organisms, and resistance epidemiology should be considered together to help guide empiric treatment of initial infections. Treatment should be re-evaluated as additional information from culture and sensitivity become available.

Calculation of results based on first isolate per patient.

- 90-100% of isolates are susceptible to the antibiotic indicated (GOOD CHOICE)
- 21-89% of isolates are susceptible to the antibiotic indicated (INTERMEDIATE CHOICE)
- 0-20% of isolates are susceptible to the antibiotic indicated (POOR CHOICE)
- Value based on < 30 isolates. Statistical comparison on results with less than 30 isolates is unreliable. n = # of isolates tested.
- Antibiotic susceptibility testing is not typically performed on the organism.